

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Philipp Huemer et al.	Art Unit	: 2836
Serial No.	: 10/528,040	Examiner	: Dharth Haridas Patel
Filed	: September 16, 2005	Conf. No.	: 2757
Title	: PROTECTIVE DEVICE FOR SURGE PROTECTION OF EQUIPMENT IN COMMUNICATIONS SYSTEMS AND USE THEREOF (AS AMENDED)		

MAIL STOP AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

We request that a panel of Examiners review the rejections made by the Examiner because of the deficiencies discussed below.

I. Rejection

Claims 1 to 6, 8 to 13, and 15 to 22 were rejected under §103 over U.S. Patent No. 6,188,307 (Katsuki) in view of U.S. Patent Publication No. 2002/0089408 (Walsh).

II. Question For Review

We specifically request the panel to review the following issues:

1. Whether it would have been obvious to combine Katsuki and Walsh in the manner set forth in the Office Action to render obvious independent claims 1 and 13.

We reserve the right to expand the issues or to present new issues when filing an appeal brief.

III. Independent Claims 1 and 13

Each of independent claims 1 and 13 recites the following features:

- a first electrical component having a first electrical property;
- a second electrical component having a second property, the first electrical property and the second electrical property being substantially identical;
- a housing that holds the first electrical component and the second electrical component;
- wherein the housing has an upper side that completely covers the first electrical component and the second electrical component and that protects the first electrical component and the second electrical component from a contact voltage.

We contend that it would not have been obvious to combine Katsuki and Walsh in the manner suggested in the Office Action to render obvious the foregoing features, in particular, the housing that has an upper side that completely covers the first electrical component and the second electrical component and that protects the first electrical component and the second electrical component from a contact voltage.

IV. Standards for Obviousness Rejections

“It is well established that the burden is on the PTO to establish a prima facie showing of obviousness, *In re Fritsch*, 972 F.2d. 1260, 23 U.S.P.Q.2d 1780 (C.C.P.A., 1972).”

In *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) the Supreme Court reversed a decision by the Court of Appeal's for the Federal Circuit decision that reversed a summary judgment of obviousness on the ground that the district court had not adequately identified a motivation to combine two prior art references. The invention was a combination of a prior art repositionable gas pedal, with prior art electronic (rather than mechanical cable) gas pedal position sensing. The Court first rejected the “rigid” teaching suggestion motivation (TSM) requirement applied by the Federal Circuit, since the Court's obviousness decisions had all advocated a “flexible” and “functional” approach that cautioned against “granting a patent based on the combination of elements found in the prior art.”

With respect to the genesis of the TSM requirement, the Court noted that although “As is clear from cases such as *Adams*¹, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.”

¹ *United States v. Adams*, 383 U. S. 39, 40 (1966)

In application of the TSM requirement, the Court cautioned that: "Helpful insights, however, need not become rigid and mandatory formulas; and when it is so applied, the TSM test is incompatible with our precedents." To the extent the Fed Cir has been applying a flexible rule recently, that flexible rule was not applied in this case, and the Fed Cir can figure out how to match its actions to this decision.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

V. Argument

As admitted on page 3 of the Office Action, Katsuki's insulating case 21 does not completely cover the first electrical component and the second electrical component. Walsh was cited to overcome this deficiency of Katsuki. In particular, the Office Action equates insulating layer 33 to a housing, and states that "it would have been obvious to combine the teachings of Katsuki and Walsh for the benefit of providing electrical insulation and mechanical protection, and for use with devices exposed to high voltage conditions in which arcing from one electrode

to the other may occur [Walsh, par. 0009]”². The Office Action also states that “Katsuki goes on to say that ‘Furthermore, foreign matter is unlikely to enter the case 21 since laser trimming is used.’ This is a clear suggestion that Katsuki is concerned with dirt/debris entering the case, and serves as an additional motivation to totally enclose the Katsuki’s apparatus entirely in a housing, as taught by Walsh.”³ We respectfully disagree.

More specifically, as shown in its Fig. 5, Katsuki’s case 21 includes two cavities 21a and 21b. Cavities 21a and 21b are formed so that they are externally accessible, and do not completely cover the components. The reason for forming the cavities relates to trimming and measuring trimming resistance, as is described in the following excerpt from Katsuki:

The thermistor devices 25 and 26 are inserted horizontally into the cavities 21a and 21b of the case 21, as shown in FIG. 7. One measuring terminal 45a of a resistance measuring instrument 45 is inserted into a first hole 21d of the case 21 to touch a first protruding terminal 30. The other measuring terminal 45b is also inserted into a first cavity 21a to touch the first spring electrode 25a. In the same way, one measuring terminal 46a of a second resistance measuring instrument 46 touches a second protruding terminal 31 and the other measuring terminal 46b touches a second electrode 26a. Then the resistances of the thermistor devices 25 and 26 are measured at the same time to avoid adverse effects caused by a change in the ambient temperature on resistance measurement and a minute change by aging of the resistance measuring instruments 45 and 46. Therefore, the difference in resistance between the two thermistor devices 25 and 26 is accurately measured to conduct accurate trimming in a subsequent process.

The measured, accurate resistance data is sent to a calculation processing unit 47 and an electrode area to be removed from whichever has a lower resistance between the two thermistor devices 25 and 26 (in the second embodiment, the left thermistor device 25 as shown in FIG. 4) is calculated from the resistance difference between the two thermistor devices. Then, according to the electrode area to be removed, a drive signal is sent from the calculation processing unit 47 to a laser trimming unit 50. The laser trimming unit 50 emits a laser beam L to trim the thermistor device 25, which has a lower resistance. In other words, a part of the electrode 25a, which is exposed through the opening portion of the cavity 21a, is removed and the whole area of the electrode is reduced by the specified area. (emphasis added)⁴

As also described in Katsuki

Since trimming as well as measuring resistance is conducted in the condition in which the thermistor devices 25 and 26 are housed in the case 21, smooth assembling can be performed and changes in resistance of the thermistor devices 25 and 26 due to cracks or chips occurring when the devices are handled can be prevented. Furthermore, foreign matter is unlikely to enter the case 21 since laser trimming is used.⁵

² Office Action, pages 3 and 4

³ Office Action, page 10

⁴ Col. 6, lines 21 through 57

⁵ Col 6, line 63 to column 7, line 2

Thus, Katsuki describes benefits to having cavities 21a and 21b formed so that they do not completely cover the components (e.g., smooth assembly and prevention of cracks or chips). If Walsh's insulating layer/box 33 were substituted for case 21, it is believed that the foregoing benefits described in Katsuki would not result (since Walsh's insulating layer/box would not provide access to the components in cavities 21a and 21b). Accordingly, we contend that there is nothing whatsoever in Katsuki or in Walsh that teaches the desirability of incorporating a housing into the Katsuki apparatus that completely covers its components. In fact, we contend that Katsuki actually teaches away from a combination with Walsh, since such a housing would appear to effectively preclude the ability to perform laser trimming of the type described in Katsuki. For at least these reasons, the combination of Katsuki and Walsh is believed to be improper as a matter of law.

The comment on page 10 of the Office Action regarding dirt/debris has nothing to do with the housing. Rather as clearly shown in the excerpt above, "foreign matter is unlikely to enter the case 21 *since* laser trimming is used" (emphasis added). This comment relates to laser trimming, not to the desirability of including a housing completely covering the component. In fact, it is the laser trimming process that reduces the likelihood of foreign matter entering case 21, which same laser trimming process could not be performed (due to lack of access) if the housing of Walsh were used to cover the Katsuki component.

In view of the above, all of the claims should be in condition for allowance.

Please apply any other required fees to deposit account 06-1050, referencing the attorney docket number 14219-083US1.

Date: June 27, 2008

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906
21959335.doc

Respectfully submitted,



Paul A. Pysher
Reg. No. 40,780